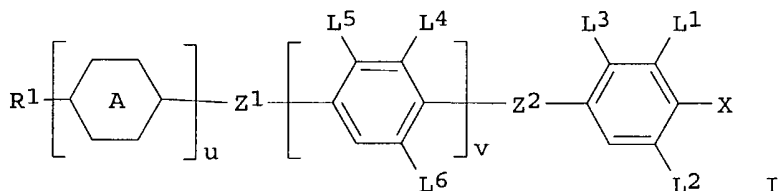


AN 2004:261053 CAPLUS  
 DN 140:278569  
 ED Entered STN: 31 Mar 2004  
 TI Liquid crystalline medium showing improved physical properties for liquid crystal display  
 IN Kirsch, Peer; Lenges, Marc; Heckmeier, Michael  
 PA Merck Patent G.m.b.H., Germany  
 SO Eur. Pat. Appl., 75 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 IC ICM C09K019-30  
 ICS C09K019-20  
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 75

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1403356	A1	20040331	EP 2003-21131	20030922
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	US 2004075081	A1	20040422	US 2003-673477	20030930
	JP 2004149774	A2	20040527	JP 2003-339336	20030930
PRAI	DE 2002-10246117	A	20020930		
OS	MARPAT 140:278569				
GI					



AB The title liquid crystalline medium based on a polar compound mixture contains one or

more compds. represented by general formula I (R1 = C1-12-alkyl, etc.; A = 1,4-trans-cyclohexylene, 1,4-phenylene, etc.; L1-6 = H, F; Z1, Z2 = -COO-, -CF2O-; X = F, Cl, CN, etc.; u, v = 1, 2). Synthesis examples and mixture examples are described.

ST nematic liq crystal mixt display synthesis

IT Liquid crystal displays

(liquid crystalline medium showing improved phys. properties for liquid crystal display)

IT Liquid crystals

(nematic; liquid crystalline medium showing improved phys. properties for liquid crystal display)

IT 4856-04-6 76802-59-0 76802-61-4 80944-44-1 81711-13-9 84540-37-4  
 84816-56-8 87941-72-8 92263-41-7 97398-80-6 102714-93-2  
 102714-95-4 106349-49-9 121219-85-0 131819-23-3 132123-39-8  
 132123-45-6 133261-31-1 133914-49-5 133914-50-8 133937-72-1  
 135734-59-7 135734-60-0 137528-82-6 137528-84-8 137644-54-3  
 137810-19-6 139215-80-8 139395-96-3 142400-92-8 173837-35-9  
 174805-87-9 175859-25-3 181943-55-5 205806-87-7 279246-65-0  
 281680-30-6 326894-55-7 326894-64-8 432004-53-0 432004-56-3  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(mixture; liquid crystalline medium showing improved phys. properties for liquid crystal display)

IT 674778-01-9P 674778-02-0P 674778-03-1P  
674778-04-2P 674778-05-3P 674778-06-4P  
674778-07-5P 674778-08-6P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of liquid crystalline medium showing improved phys. properties for liquid crystal display)

IT 109-80-8, Propane-1,3-dithiol 120-47-8, 4-Hydroxybenzoic acid ethyl ester 1493-13-6, Trifluoromethanesulfonic acid 2713-34-0, 3,5-Difluorophenol 13411-42-2, 2-Trimethylsilyl-1,3-dithiane 40649-36-3 99627-05-1, 3,4,5-Trifluorophenol 183245-00-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of liquid crystalline medium showing improved phys. properties for liquid crystal display)

IT 674777-93-6P 674777-95-8P 674777-96-9P 674777-97-0P  
674777-98-1P 674777-99-2P 674778-00-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of liquid crystalline medium showing improved phys. properties for liquid crystal display)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Chisso Corporation; EP 0786445 A 1997 CAPLUS
- (2) Chisso Corporation; EP 0844229 A 1998 CAPLUS
- (3) Chisso Corporation; EP 0916639 A 1999 CAPLUS
- (4) Merck Patent Gmbh; WO 0125370 A 2001 CAPLUS
- (5) Merck Patent Gmbh; WO 0127221 A 2001 CAPLUS

IT 674778-01-9P 674778-02-0P 674778-03-1P  
674778-04-2P 674778-05-3P 674778-06-4P  
674778-07-5P 674778-08-6P

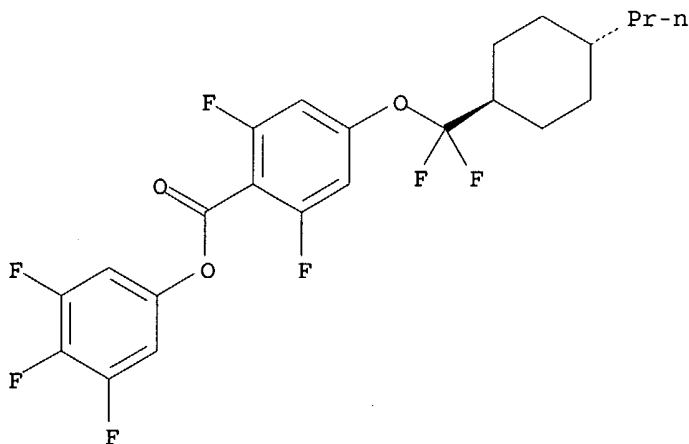
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of liquid crystalline medium showing improved phys. properties for liquid crystal display)

RN 674778-01-9 CAPLUS

CN Benzoic acid, 4-[difluoro(trans-4-propylcyclohexyl)methoxy]-2,6-difluoro-, 3,4,5-trifluorophenyl ester (9CI) (CA INDEX NAME)

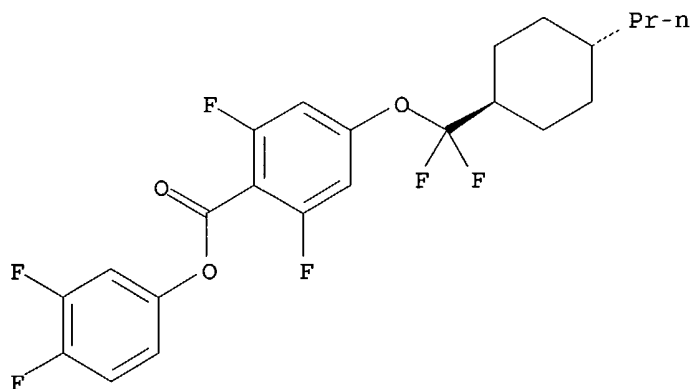
Relative stereochemistry.



RN 674778-02-0 CAPLUS

CN Benzoic acid, 4-[difluoro(trans-4-propylcyclohexyl)methoxy]-2,6-difluoro-,  
3,4-difluorophenyl ester (9CI) (CA INDEX NAME)

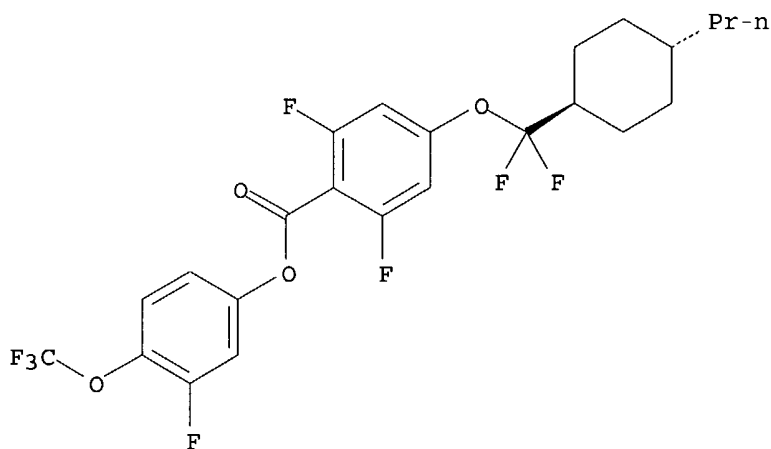
Relative stereochemistry.



RN 674778-03-1 CAPLUS

CN Benzoic acid, 4-[difluoro(trans-4-propylcyclohexyl)methoxy]-2,6-difluoro-,  
3-fluoro-4-(trifluoromethoxy)phenyl ester (9CI) (CA INDEX NAME)

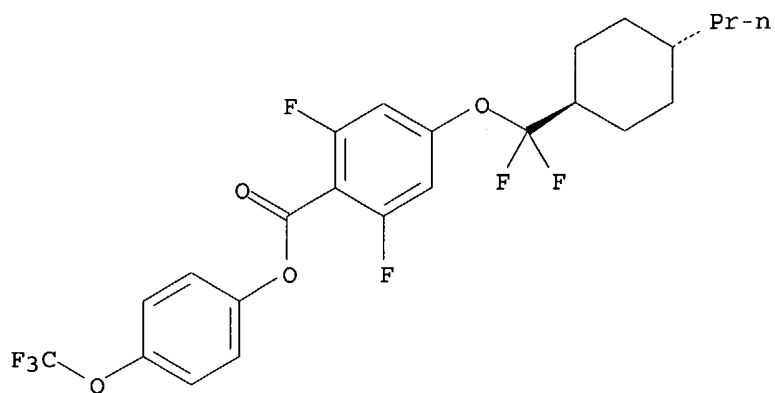
Relative stereochemistry.



RN 674778-04-2 CAPLUS

CN Benzoic acid, 4-[difluoro(trans-4-propylcyclohexyl)methoxy]-2,6-difluoro-,  
4-(trifluoromethoxy)phenyl ester (9CI) (CA INDEX NAME)

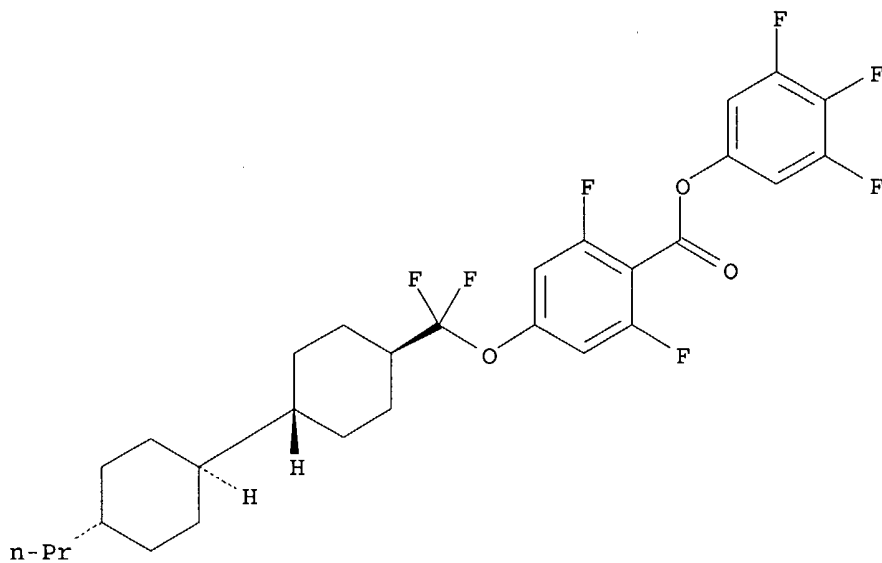
Relative stereochemistry.



RN 674778-05-3 CAPLUS

CN Benzoic acid, 4-[difluoro[(trans,trans)-4'-propyl[1,1'-bicyclohexyl]-4-yl]methoxy]-2,6-difluoro-, 3,4,5-trifluorophenyl ester (9CI) (CA INDEX NAME)

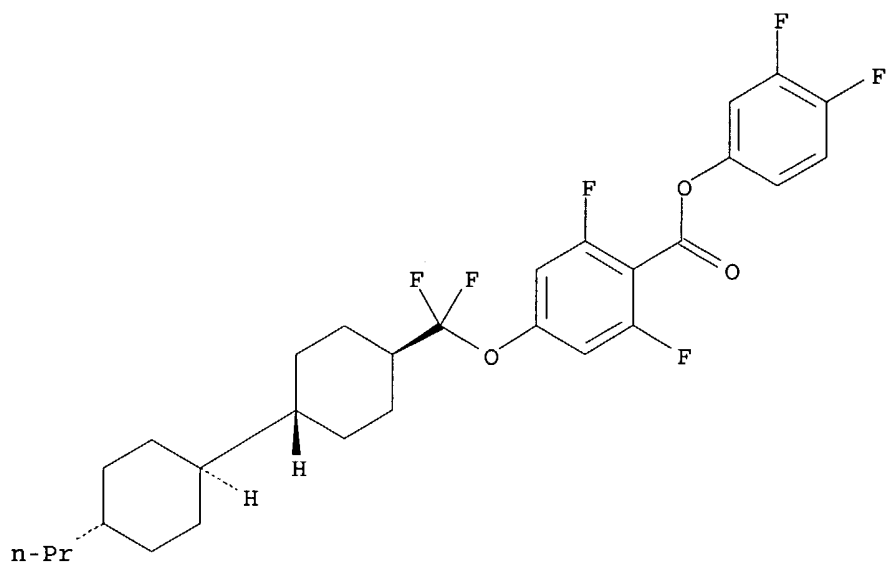
Relative stereochemistry.



RN 674778-06-4 CAPLUS

CN Benzoic acid, 4-[difluoro[(trans,trans)-4'-propyl[1,1'-bicyclohexyl]-4-yl]methoxy]-2,6-difluoro-, 3,4-difluorophenyl ester (9CI) (CA INDEX NAME)

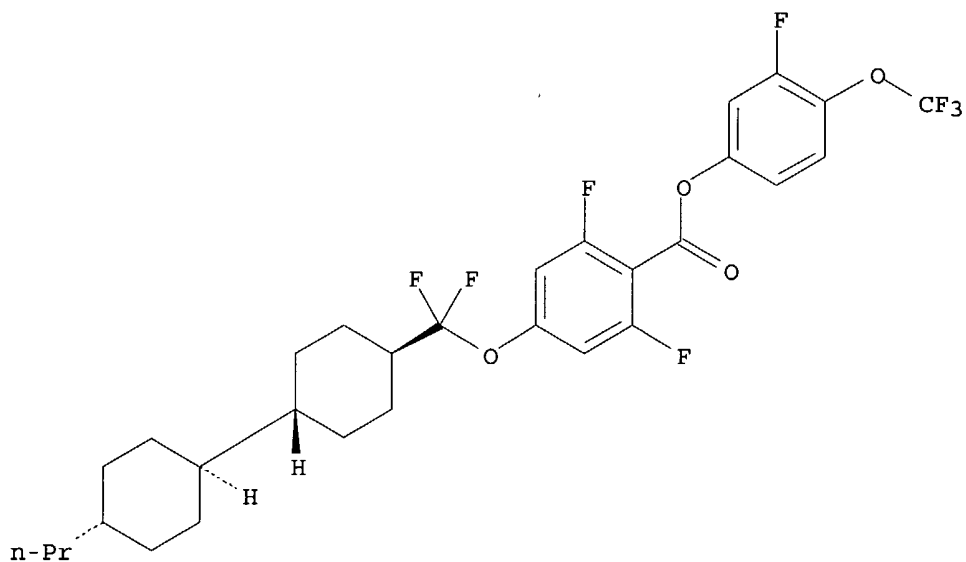
Relative stereochemistry.



RN 674778-07-5 CAPLUS

CN Benzoic acid, 4-[difluoro[(trans,trans)-4'-propyl[1,1'-bicyclohexyl]-4-yl]methoxy]-2,6-difluoro-, 3-fluoro-4-(trifluoromethoxy)phenyl ester (9CI)  
(CA INDEX NAME)

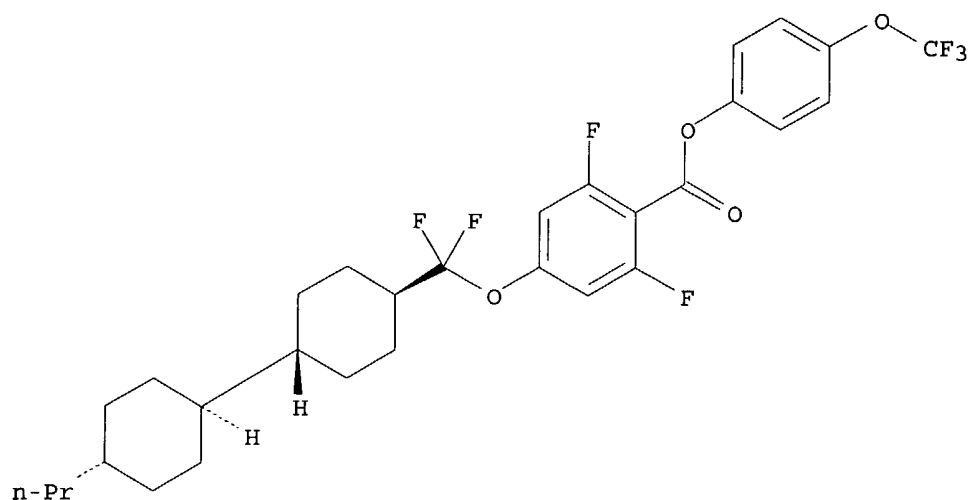
Relative stereochemistry.



RN 674778-08-6 CAPLUS

CN Benzoic acid, 4-[difluoro[(trans,trans)-4'-propyl[1,1'-bicyclohexyl]-4-yl]methoxy]-2,6-difluoro-, 4-(trifluoromethoxy)phenyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 674777-97-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

for (preparation of liquid crystalline medium showing improved phys. properties liquid crystal display)

RN 674777-97-0 CAPLUS

CN Benzoic acid, 4-[(2,6-difluoro-4-propylphenyl)difluoromethoxy]-, 3,4,5-trifluorophenyl ester (9CI) (CA INDEX NAME)

